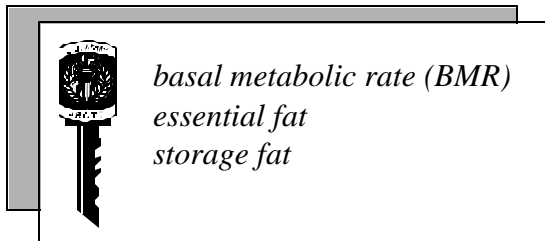


LESSON 5: CONTROLLING FAT



INTRODUCTION

In today's society, obese and overweight people, young and old, seek corrective advice from all types of organizations and individuals. These "experts," for many reasons, attempt to encourage and control what we eat, how we eat, when we eat, how much of what we eat, etc.

In this lesson, you will learn how it is possible, without difficulty, to carry an amount of fat that is helpful and encourages the dynamic living principle. You will see in the simplest terms a method designed to keep you healthy and promote enjoyment of living while participating in life to your fullest potential.

FAT CONTROL

To be obese or overweight increases your risk of cardiovascular disease, high blood pressure, gall bladder disease, diabetes, and certain types of cancer. It also prevents you from performing actively at your highest potential and raising your self-esteem and self-assurance.

To determine whether you are obese or overweight does not depend on how much you weigh on a scale. All of us have our own unique and special body types, which include our inherited strengths and weaknesses, and tendencies that encourage accumulation of fat

in our formative years. These tendencies include:

- family eating habits
- a tendency to develop more fat cells
- a large skeletal structure
- any number of unproved theories passed down through the years

To ensure that you follow a proper and proven method for obtaining a healthier lifestyle, we will present you with a few guidelines on learning how to control your fat intake. As you read through the next two sections, you will learn how to control the amount of fat you consume in your daily diet.

STEP BY STEP TO A LEAN BODY FAT CONTENT

STEP 1: RESTRICTING YOUR FAT INTAKE

Most of us are continually trying to lower our body fat. When you diet, the body says you need to store more fat instead of less. This causes, especially in females, the body to slow down, which reduces the fat burning enzymes. Therefore, with each diet you undertake, the body reduces more fat burning enzymes, making it harder for you to lose fat. But remember, fat levels that drop too low are also unhealthy and unsafe. A certain amount of **essential fat** is necessary to maintain the bodily functions discussed earlier.

For example, most women should not go below eight percent, as this would upset the menstrual cycle, the ability to conceive children, and eventually hormonal balance. In men, the lower limit is approximately three to four percent.

Storage fat, on the other hand, is our fat reserve that can become a problem for many of us. Women in general seem to have a

greater propensity to store fat. The reason for this is probably estrogen, which increases the fat-storing capability. Evidence points to the hips, thighs, and buttocks as the body's most desirable storage areas.

Listed below are ratings of body fat percentages by age and gender:

Males ages 18 to 30:

Athletes	6 – 10%
Good	11 – 14%
Acceptable	15 – 17%
Possibly needs help (Obese/Overweight)	18% and over

Females ages 18 to 30:

Athletes	10 – 15%
Good	16 – 19%
Acceptable	20 – 24%
Possibly needs help (Obese/Overweight)	25% and over

The average-weight adult has approximately 25 to 30 billion fat cells whereas the average overweight adult has between 60 to 100 billion. However, some overweight people can have as many as 200 billion. Many factors are responsible for the development of these fat cells. Despite all the reasons, a person's growth and/ or activities may or may not use all of the foods, or calories, consumed. The body will store the non-used calories as fat. For maximum benefit, keep saturated fat to a minimum. Count your total fat intake over a seven-day period. If you foul up, just cut back the next day.

When your fat content is where you desire, the next step is to develop a lifetime guideline for healthy eating. Calculate your daily intake of carbohydrates, fats, and proteins (as you did in the Journal Exercises for those lessons). Then, choose one of the

following plans and stick to it. The two plans that best enhance the dynamic living profile are #2 or #3. Whichever plan you select will require an effort on your part to make it succeed; but, it will work and you can enjoy the benefits of that change.

Plan #1 (Average American Diet)

Fat	37 – 42%
Saturated Fat	12 – 15%
Protein	10 – 15%
Carbohydrates	40 – 45%

Plan #2 (The New American Diet)

Fat	20%
Saturated Fat	6%
Protein	10 – 15%
Carbohydrates	60 – 65%

Plan #3 (The Lifetime Eating Plan)

Fat	10%
Saturated Fat	Low
Protein	10 – 15%
Carbohydrates	75 – 80%

Plan #4 (U.S. Dietary Goals)

Fat	30%
Saturated Fat	10%
Protein	10%
Carbohydrates	60%

STEP 2: EXERCISE — HOW THE BODY BURNS FOOD (CALORIES/ENERGY)

In addition to eating a healthy diet, you must follow an exercise program to maintain a lean body fat content. Balancing how many calories you consume with how many calories your body burns daily is the key to maintaining body fat content and weight. People gain body fat when they consume more calories daily than their bodies

use for energy. Keep in mind that one pound of body fat contains approximately 3,500 calories. Therefore, if a person wants to lose a pound of body fat in one week, he or she must burn 3,500 calories more than he or she consumes over the course of the week.

Your body burns calories even when it is at complete rest. **Basal metabolic rate (BMR)** is the number of calories burned at complete rest, and it varies based on age, health, and body size, shape, and weight. For example, after age 25, most people's BMR decreases approximately one percent because their requirements for energy slow down. In addition to your BMR, your body burns calories through muscle activity; and while you do not have much control over your BMR, you do have control over the amount of physical activity you participate in. Obviously, the more active you are, the more calories you use.

Choose an exercise program that accomplishes the two goals of improving your heart and lungs, as well as working your muscles. You can increase the efficiency of the heart and respiratory system through exercises such as jogging, swimming, and biking that increase the heart rate and maintain it for a set period of time. The time will vary based on your age, abilities, and the exercise being performed.

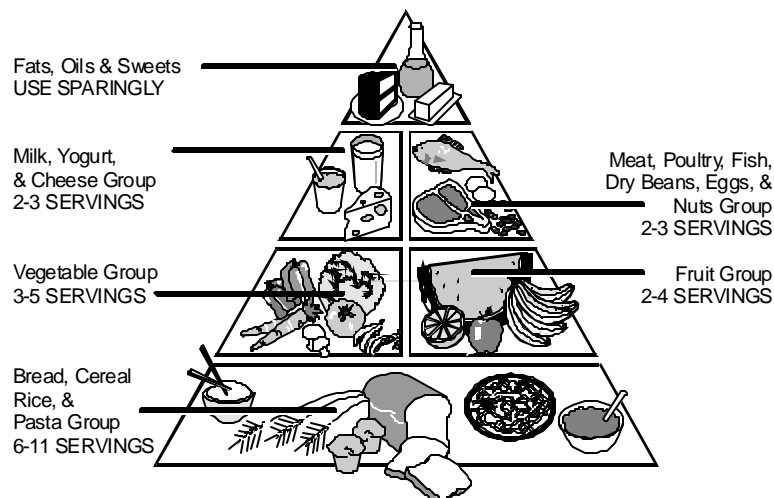
The second goal of working your muscles includes toning your muscles and/or increasing your muscle size, and improving your muscle strength. Since muscle burns more energy than fat, the more muscle tissue you have, the more calories you burn. This is also true of your BMR, meaning that even at rest, the more muscle mass you have, the more energy your body will burn. You can work your muscles through weight training and exercises such as push-ups and sit-ups.

STEP 3: FOOD CONTROL AND CHOICE

People eat for many different reasons: they feel hungry, the time of day, they missed a meal, or they are following their families' eating routine. Whatever the reason to eat at any given time, it is the choice of food that will truly make the difference in whether you will develop an overfat problem or maintain the dynamic living profile.

The food groups at the bottom half of the Food Guide Pyramid are foods that you should eat three or more times daily. Do not hesitate to eat plenty of these foods freely. They foods you should be eating daily are as follows:

Vegetables: fresh, steamed, or microwaved — lots of carrots, broccoli, cabbage, brussels sprouts, kohlrabi, Swiss



chard, and cauliflower (anti-carcinogenic properties).

Fruits — lots of oranges, apples, apricots, peaches, grapefruit (vitamin C).

Breads, cereals, rice, and pasta — lots of stone ground and low fat breads and cereals (vitamin E).

The Food Guide Pyramid is an outline of what to eat daily. It is not a rigid prescription, but a general guideline developed by the U.S. Department of Agriculture that will let you choose a healthful diet that is right for you. The Pyramid calls for eating a variety of foods to obtain the nutrients you need and at the same time the right amount of calories to maintain a healthy weight. For example, the base of the food group Pyramid shows you should eat six to 11 servings of grain based foods each day. A slice of bread generally equals one serving. These foods provide carbohydrates (starches), which are an important source of energy, especially in low-fat diets.

STEP 4: MEASURING YOUR BODY FAT

This text presents two fairly accurate methods of measuring your body fat. Follow the directions and do not be discouraged. Body types differ, and you are your own special person.

Pinch an Inch Test

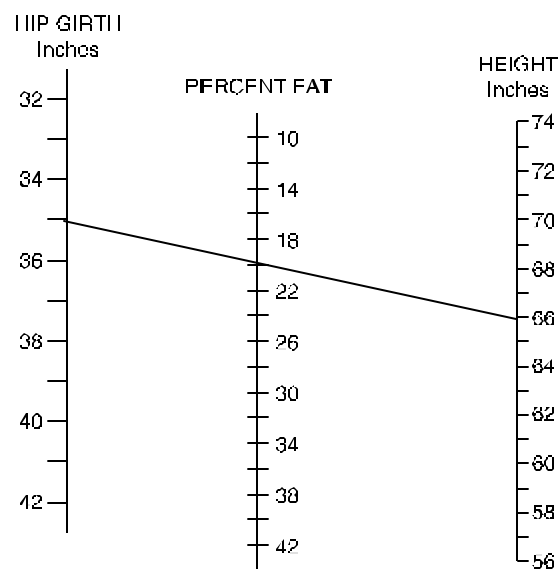
Remember, your body does not need large amounts of fat. When your storage, or reserve, fat begins to melt away, you can determine the right level by using the “pinch an inch” test as a simple method of measuring and maintaining your body’s fat.

You can perform the “pinch an inch” test by pinching the skinfold of your triceps (women only), waist, or thighs between your fingers. If the fat is over an inch between your thumb and forefinger, you might consider continuing your fat control program.

Estimating Body Fat

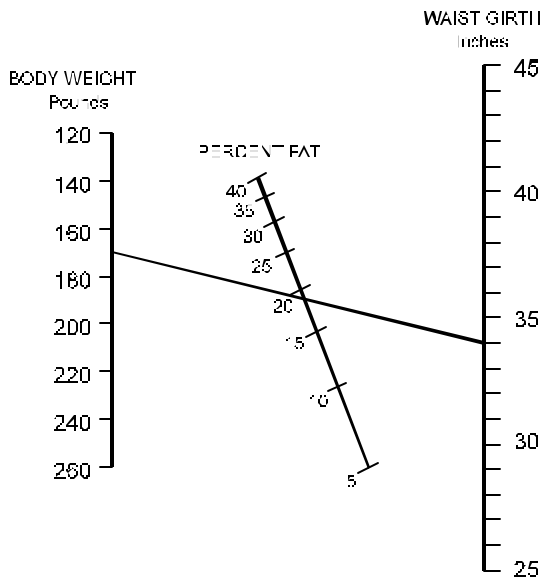
Jack H. Wilmore, an exercise physiologist at the University of Texas in Austin, created the following ways to measure body fat.

Ladies, measure the circumference of your hips at the widest point, and plot that measurement and your height on the following chart. Then, using a straight edge, draw a line connecting the two plots. Your body fat percentage is where the line crosses the percent fat column. Refer to the appropriate chart in Step 1 to see if your fat content is acceptable, good, athletic, or needs help.



Guys, measure the circumference of your waist at the exact level of the belly button, making sure to keep the tape perfectly horizontal. Plot that measurement and your

weight on the chart at the top of the next column. Then, using a straight edge, draw a line connecting the two plots. Your body fat percentage is where the line crosses the percent fat column. Refer to the appropriate chart on in Step 1 to see if your fat content is acceptable, good, athletic, or needs help.



THE ROAD TO FAT CONTROL

A 1992 Consumer Reports survey with 68 nutrition experts indicated a deepening concern over America's dietary habits and implicated the leading causes of death as being associated with eating and drinking. The causes of death are: coronary artery disease (heart attack), cancer, cerebral vascular disease (stroke), diabetes, liver disease, plus bowel disorders and osteoporosis.

The 68 experts agreed on a reasonable diet for the American people as one that closely resembles the dietary guidelines set forth by the U.S. RDI and the Department of Health and Human Services. Additionally, the experts were much more deliberate in defining an "ideal" diet as one that maximizes

the immune system, reduces the risk of disease, and minimizes the process of aging.

By understanding the experts' opinions and responses, you can develop a formula that promotes a healthier lifestyle. If used properly, this formula can improve your immune system and risks against the leading causes of death, keep your body fat at a healthy level, and enhance your potential to maintain an ideal body fat content for life.

CARBOHYDRATES: HOW TO EAT THEM

A definition of natural foods is one that fits the carbohydrate category perfectly. The definition says: natural foods are foods that are as unrefined as possible and free from additives and preservatives. Fruits, vegetables, and grains in their natural state are the key elements to a maximized immune system and a body fat content that will maintain itself for a lifetime.

There is growing evidence that a diet rich in fruits, vegetables, and grains will reduce the risk of certain cancers. Such a diet will also protect the heart and bones from early breakdown and infirmity, which limit millions of Americans from enjoying their potential.

The experts recommend at least seven servings of fruits and vegetables and six servings of grain products a day. To be realistic in our hurry-up lifestyles, this may not be possible. However, evidence supports eating small amounts of these natural products several times a day for maximum benefit.

If you can consume 60 to 80 percent of your calories from the carbohydrate group, you will be able to control your body fat much easier. There are two main reasons why this is so important: There are only four

calories per gram in carbohydrates and, in order to store carbohydrate as storage fat, it takes 23 calories out of each 100 calories eaten. That means you can consume more food and still maintain a lean body fat content.

This dieting regimen will enable you to receive all the fiber you need (20 to 35 grams a day) without worrying about supplemental fiber. Plus, there is also room to enjoy a sweet treat. But remember, look at the label and keep the fat content for the sweet to nearly zero.

PROTEIN: DON'T WORRY

If you are eating the recommended amounts of carbohydrates in a diversified manner, tests indicate you will receive your complete protein needs without concern. Most of your protein (about 85 to 90 percent) should come from plant sources, or the complex carbohydrates. Studies indicate that populations eating a high degree of protein coming from animal products (as are the Americans with 70 to 75 percent) will have a higher incidence of problems.

FAT: THE CULPRIT

A typical American diet contains a 35 to 40 percent fat intake per day. Of that, saturated fat is about 10 to 15 percent. Minimizing the intake of saturated fat lowers the LDL ("bad" cholesterol) levels, making it advisable to cut down on saturated fat to five to seven percent of total daily fat intake. Overall, total fat intake should preferably be no more than 20 percent of your total caloric intake per day. This regimen will not only aid in the improvement of your complete health profile, but it will help you to maintain a minimal body fat content.

VITAMINS, MINERALS, AND WATER: THE REGULATORS

In general, the experts believe that you can receive your vitamins and minerals in sufficient amounts from a well-balanced diet. They also suggest that you drink water at a rate of six to eight glasses per day — more if you work out rigorously.

CONCLUSION

The science of nourishing the body properly is a continually revolving door of facts, information, and misleading information. Much of the data is very conflicting and difficult to sort out, although there is some material that has remained consistent throughout the years. A basic understanding of this information will enable you to stay properly nourished.

To begin building a healthy diet, the Dietary Guidelines of Americans provides the following advice:

1. Eat a variety of foods to obtain the energy, proteins, vitamins, minerals, and fiber you need for good health.
2. Maintain a healthy weight to reduce your chances of having high blood pressure, heart disease, a stroke, certain cancers, and the most common kind of diabetes.
3. Choose a diet low in fat, saturated fat, and cholesterol. Because fat contains over twice the calories of an equal amount of carbohydrates or protein, a diet low in fat can help you to maintain a healthy weight.
4. Choose a diet with plenty of vegetables, fruit, and grain products that provide the needed vitamins, minerals, fiber, and complex carbohydrates, and can help you to lower your intake of fat.

5. Use sugars only in moderation. A diet with lots of sugars has too many calories and too few nutrients for most people.
6. Use salt and sodium only in moderation.
7. Avoid drinking alcoholic beverages. Although alcoholic beverages supply calories, they have little or no nutrients. Furthermore, drinking alcohol is the cause of many health problems and accidents.

This lesson presented up-to-date information and numerous guidelines from which you can make proper dietary choices. However, there are still many unanswered questions, such as “What is the role of supplementation?” and “How much fat is too much?” In the future, there will be more discoveries, which will lead to unlocking more doors and to expanding our understanding and potential for a dynamic, healthier way of life.